



Case Study 01A

Lewis & Clark Visitor Services Center

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The new Lewis & Clark Visitor Services Center is an example of coal combustion byproducts in action. Fly ash and other environmentally friendly products were used to make the new center as green as possible, and will help to educate visitors about the significance of natural resources in the past and present.

The North Dakota Lewis & Clark Bicentennial Foundation has created a unique facility for one of the most vital sites on the Lewis & Clark Trail. The new visitor services center at Fort Mandan stands as a showcase for coal combustion products, while at the same time educating visitors about the journey of Lewis & Clark in North Dakota. Two major parts of the North Dakota economy, energy and tourism, are featured together in order to teach visitors of their importance in American history.

The center was built to accommodate thousands of people anticipated to visit during the bicentennial of the expedition in 2003 through 2006. It is located at Fort Mandan, where Lewis & Clark spent the winter of 1804-05 on the banks of the Missouri River. It is located only a few miles from Great River Energy's Coal Creek Power Station, which worked with ISG Resources to provide materials and leadership for the project.

Lloyd E. Platt and Associates was chosen as the architect because of its track record of building with environmentally friendly products. Rolac Contracting of Minot was chosen as the general contractor for the project. Construction began in the fall of 2001 and the new visitor services center opened for business in June 2002.



Materials used to build the visitor services center complement the mission of the Lewis & Clark expedition. Before sending them on the expedition, Thomas Jefferson instructed Lewis & Clark to look for natural resources, such as coal. It is fitting that the visitor services center is primarily constructed with new, energy efficient, environmentally friendly products that are made from recycled coal combustion byproducts. Many of the materials used were donated from supportive companies, which helped keep the cost of the 5,200 square foot building around \$1 million.

Building materials used included ISG's FlexCrete™ aerated concrete block, fly ash based mortar, fly ash based stucco, synthetic wall board, fly ash backed carpets, acoustical ceiling



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tile, shingles, ceramic tile, cultured stone, and high volume fly ash concrete. A significant portion of the building materials contained fly ash, the main byproduct of burning coal.

The unique construction of the Fort Mandan visitor services center provides guests an opportunity to learn how modern technology is allowing for novel ways of utilizing the coal combustion products to create useful building materials. Visitors will gain an appreciation for natural resources, recycling, coal mines and power plants and their contributions to the American way of life, as well as learning of American Indian life and customs and Lewis & Clark's own experience at Fort Mandan.

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